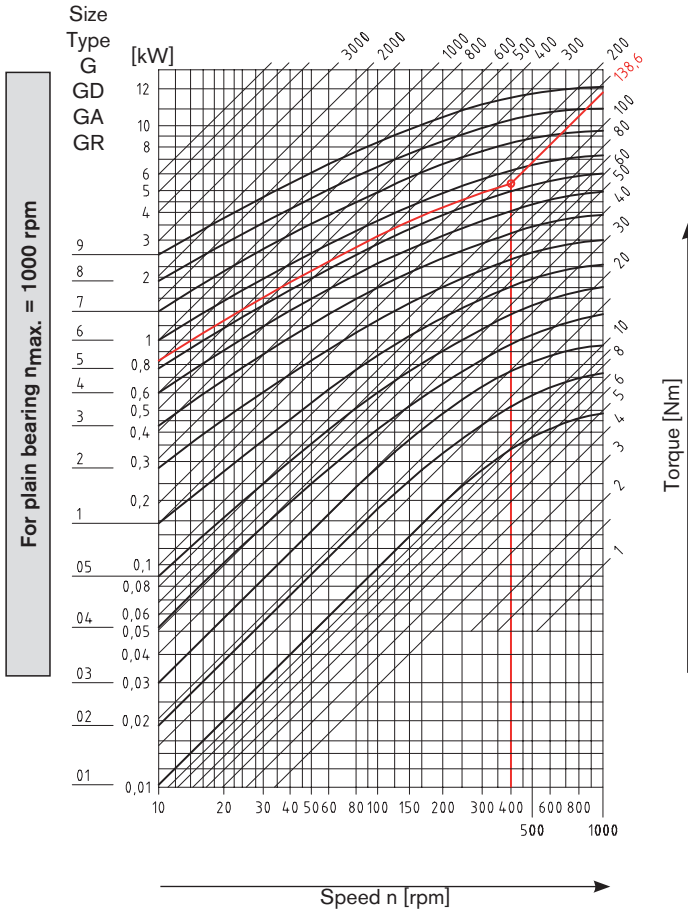


Selection and determination of size acc. to DIN 808 with plain/needle bearing



Selection of precision joints¹⁾ type G, GD, GA, GR (max. 1000 rpm)

| | |
|------------------------|------------------|
| 45° | 4,0 |
| 40° | 3,3 |
| 35° | 2,6 |
| 30° | 2,2 |
| 25° | 1,8 |
| 20° | 1,5 |
| 15° | 1,25 |
| 10° | 1,00 |
| 5° | 0,8 |
| Articulation angle [α] | Correction value |

The selection of the precision joints with plain bearing is based on the driving torque, taking into account a correction value which depends on the articulation angle α and the operating speed. For the extendable joints in addition the overall length and the speed have to be considered to determine the size (please consult with KTR engineering department).

Torque \cdot correction value = selected torque M_t

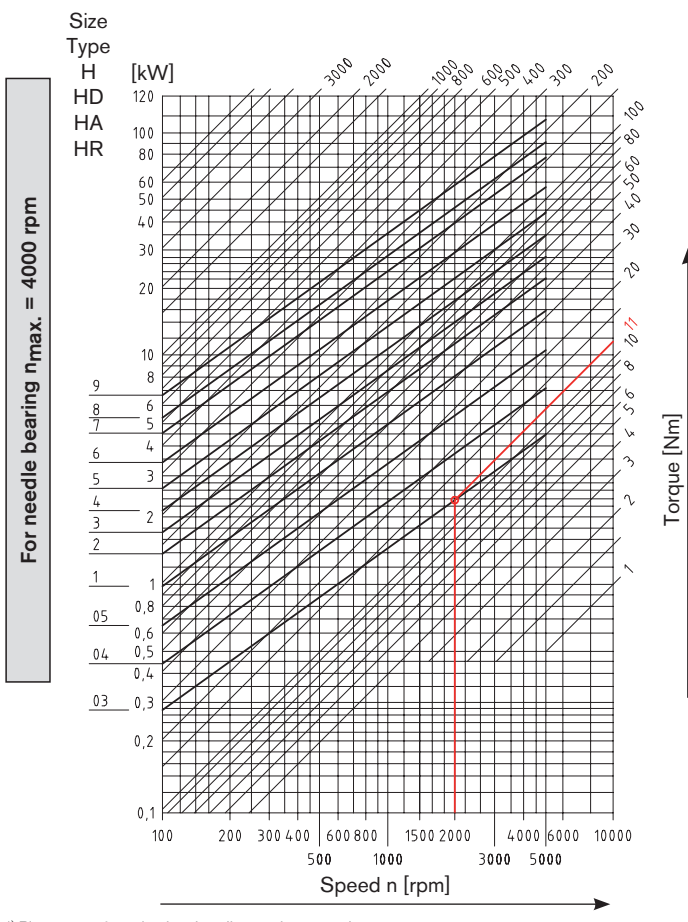
Example of selection

| Driving torque M_t [Nm] | Correction value for articulation angle [α] | Selected torque; Selection of size acc. to table |
|---------------------------|---|--|
| 63 | 30° | |
| 63 | 2,2 | 63 Nm \cdot 2,2 = 138,6 Nm |

Operating speed = 400 rpm

The selection of the size according to the table is based on the driving torque (63 Nm) \cdot correction value (30° = 2,2) = 138,6 Nm and the operating speed of 400 rpm. Selected: Joint size 6

Torque [Nm] = 9550 \cdot Power [kW] / speed [rpm]



Selection of precision joints¹⁾ type H, HD, HA, HR (max. 4000 rpm)

| | |
|------------------------|------------------|
| 45° | 4,0 |
| 40° | 3,3 |
| 35° | 2,5 |
| 30° | 2,0 |
| 25° | 1,4 |
| 20° | 1,25 |
| 15° | 1,1 |
| 10° | 1,00 |
| 5° | 0,8 |
| Articulation angle [α] | Correction value |

The selection of the precision joints with needle bearing is based on the driving torque, taking into account a correction value which depends on the articulation angle α and the operating speed. For the extendable joints in addition the overall length and the speed have to be considered to determine the size (please consult with KTR engineering department).

Torque \cdot correction value = selected torque M_t

Example of selection

| Driving torque M_t [Nm] | Correction value for articulation angle [α] | Selected torque; Selection of size acc. to table |
|---------------------------|---|--|
| 8,8 | 20° | |
| 8,8 | 1,25 | 8,8 Nm \cdot 1,25 = 11 Nm |

Operating speed = 2000 rpm

The selection of the size according to the table is based on the driving torque (8,8 Nm) \cdot correction value (20° = 1,25) = 11 Nm and the operating speed of 2000 rpm. Selected: Joint size 03

Torque [Nm] = 9550 \cdot Power [kW] / speed [rpm]

¹⁾ Please note for selection: bending angle \cdot speed \leq 40000